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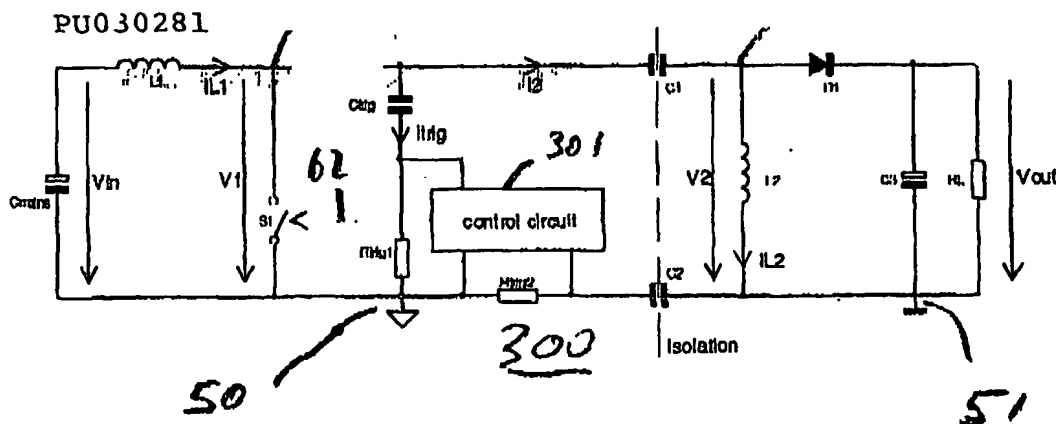
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(54) Title: CAPACITIVELY COUPLED POWER SUPPLY



(57) **Abstract:** A power supply includes a supply inductor and a first capacitor coupled to form a resonant circuit to generate a resonant waveform in a resonant operation, during a first portion of an operation cycle of the power supply. A charge storage element develops an output voltage to energize a load. A rectifier is coupled to the charge storage element and to the resonant circuit and is responsive to the resonant waveform for applying the output voltage back to the resonant circuit to interrupt the resonant operation, at an end time of the operation cycle first portion, when the resonant waveform produces a first change of state in the rectifier. A first sensor senses when the first change of state in the rectifier occurs. A source of a supply current is coupled to the rectifier and rectified in the rectifier to produce a rectified current that is coupled to the charge storage element to replenish a charge therein, during a second portion of the operation cycle. A switching transistor is responsive to an output signal of the first sensor for enabling the supply current to be coupled to the rectifier, during the operation cycle second portion, and for disabling the supply current from being coupled to the rectifier, during the operation cycle first portion.

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